

REMARKS

In this Amendment, Applicant has cancelled Claims 3, 5, 6, 9, 10 without prejudice or disclaimer and amended Claims 1, 2, 4, 7 and 8 to specify different embodiments of the present invention and overcome the rejection. In addition, the specification has been amended to correct certain informalities. It is respectfully submitted that no new matter has been introduced by the amended claims and specification. All claims are now present for examination and favorable reconsideration is respectfully requested in view of the preceding amendments and the following comments.

OBJECTION TO CLAIMS:

Claims 1 – 10 have been objected to as containing certain informalities.

It is respectfully submitted that in view of the present amendments, the objection has been overcome. In particular, Claims 3, 5, 6, 9 and 10 have been cancelled without prejudice or disclaimer. Thus, the objection to these claims is moot. More importantly, Claims 1, 2, 4, 7 and 8 have been amended to correct informalities and clarify various terms.

Therefore, the objection has been overcome. Accordingly, withdrawal of the objection is respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 112 FIRST PARAGRAPH:

The specification has been rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing terms that are not clear, concise and exact.

It is respectfully submitted that the amended specification has overcome the rejection and satisfy the written description requirement. More specifically, the specification has been amended to clarify various terms pointed out by the Examiner and correct other informalities. Thus, the amended specification is clear, concise and exact.

Therefore, the rejection under 35 U.S.C. § 112, first paragraph has been overcome. Accordingly, withdrawal of the rejection under 35 U.S.C. § 112, first paragraph, is respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 112 SECOND PARAGRAPH:

Claims 1 – 2 and 4 – 10 have been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is respectfully submitted that in view of the present amendments, the rejection has been overcome. More specifically, Claims 3, 5, 6, 9 and 10 have been cancelled without prejudice or disclaimer. Thus, the objection to these claims is moot. In addition, Claims 1, 2, 4, 7 and 8 have been amended to correct informalities by clarifying various terms and deleting certain terms.

Therefore, the rejection under 35 U.S.C. § 112, second paragraph, has been overcome. Accordingly, withdrawal of the rejections under 35 U.S.C. § 112, second paragraph, is respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 102:

Claims 1 – 3, 6, 7, 9 and 10 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Takahashi et al. (US Pat. No. 5,050,585), hereinafter Takahashi.

Applicant traverses the rejection and respectfully submits that the presently claimed invention is not anticipated by the cited reference. Claims 3, 6, 9 and 10 have been cancelled without prejudice or disclaimer. Thus, the objection to these claims is moot. In addition, Claims 1, 2, and 7 have been amended to define inventions that are significantly different from Takahashi.

First, the fluid-air channel of the present invention is not disclosed or suggested by Takahashi. Takahashi disclosed a channel tube with three channels which are linked together including a biopsy channel, an air channel and a water channel forming a whole which is set on the inside of an endoscope. However, a fluid-air channel in the present invention is set between the outside of an endoscope and inside of a capsule. The fluid channel, air channel and a disposal channel are separated, which provide the volume disperse and the disposal channel with enough space for inserting biopsy forceps.

Second, Takahashi failed to disclose or suggest the way of removing on and off capsule from the endoscope and the structure of the capsule under the present invention. Takahashi disclosed a tubular portion of the sheath having a diameter slightly smaller than the outer diameter of an insert tube. The tubular portion of the sheath is readily fitted over the outer surface of the insert tube by virtue of its elasticity, that is, by rolling up the tubular portion into and then unrolling it over the insert tube. Alternatively, the tubular portion is slipped on and off the insert tube by evacuating it by supplying pressurized air.

In the present invention, the length and diameter of the capsule matches the length and diameter of the endoscope body. In fact, the length of the capsule is shorter than the length of the endoscope body and the diameter is larger than the diameter of the endoscope body. Its posterior end connects with a locking ring. The capsule and an end cap are pulled by the locking ring to cover endoscope body and heightened. Then, the capsule becomes longer, thinner, and tightly close to the endoscope body due to the elasticity of the capsule, when the capsule is pulled.

In comparison with Takahashi, the advantage of the present invention is that it does not need the assistance from other instrument as in Takahashi. The present invention is more convenient than Takahashi. Moreover, the capsule can be fixed on the endoscope with the locking ring expediently and firmly.

Third, the locking ring of the present invention is not disclosed or suggested by Takahashi. In the present invention, the upper and lower handles of the locking ring have corresponding oblique teeth to tighten or loose the posterior capsule. As mentioned

above, it connects with the capsule to fix the capsule on the endoscope. Furthermore, the capsule is removed on and off from the endoscope body by pulling the locking ring.

In contrast, the tubular portion 10A of Takahashi is not a locking device but covers the end of a sheath 10 and is the same as the tubular 10a. The structure of the tubular portion is similar to the end of condom. Many experiments conducted by Applicants proved that the sheath 10 and the tubular portion 10A cannot cover the length of the endoscope by rolling up and off. Moreover, a ring 20, which was not linked with a sheath 10, cannot fix the sheath on the endoscope firmly and does not have the function of pulling the sheath.

Finally, the end cap of the present invention was not disclosed or suggested by Takahashi. The end cap of the present invention is made of an elastic, flexible and thin membrane. The end cap's inner face matches the endoscope body. When the capsule is lengthened, the elastic capsule can be locked by the locking ring to ensure the anterior inner face of the end cap constantly and tightly close to the anterior end face of the endoscope. Since there is no space between the capsule end cap and anterior tip of the endoscope, hardly any light rays are reflected into the observation system due to the flexibility of the end cap.

In contrast, the support member 10b of Takahashi was made of a transparent material, with both, for example, a transparent styrol resin material (transparent hard material) formed with such a size that the distal end portion is loosely fitted therein. The surface of the support member 10b is close to the viewing window. There is a space between support member 10b and the viewing window to make enough light reflected into the viewing window and disturb the observation system.

Therefore, the newly presented claims are not anticipated by Takahashi and the rejection under 35 U.S.C. § 102(b) has been overcome. Accordingly, withdrawal of the rejection under 35 U.S.C. § 102(b) is respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 103:

Claim 4 has been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Takahashi in view of DeStefano (US 6, 282,442). Claim 5 has been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Takahashi in view of Shalit (US 3,398,743). Claim 8 has been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Takahashi in view of Carrilio Jr. (US 2003/0209104) and Vaillacourt (US 2001/0053895).

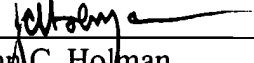
Applicant traverses the rejection and respectfully submits that the embodiments of present-claimed invention are not obvious over the cited references. Claim 4 has been cancelled without prejudice or disclaimer. Thus, the objection to these claims is moot. In addition, Claims 5 and 8 define inventions that are significantly different from Takahashi. The significant differences have been described above. Due to these differences, there is no motivation or suggestion to combine Takahashi and other cited references. Even if they are combined, they would not teach the present invention as defined.

In summary, the newly presented claims are not obvious over cited references. The rejection under 35 U.S.C. § 103 has been overcome. Accordingly, withdrawal of the rejections under 35 U.S.C. § 103 is respectfully requested.

Having overcome all outstanding grounds of rejection, the application is now in condition for allowance, and prompt action toward that end is respectfully solicited.

Respectfully submitted,

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